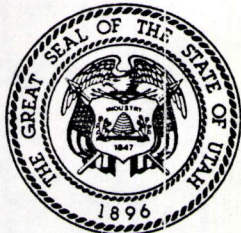


Scott M. Matheson  
Governor



James O. Mason, M.D., Dr.P.H.  
Executive Director  
801-533-6111

DIVISIONS

Community Health Services  
Environmental Health  
Family Health Services  
Health Care Financing  
and Standards

OFFICES

Administrative Services  
Health Planning and  
Policy Development  
Medical Examiner  
State Health Laboratory

STATE OF UTAH  
DEPARTMENT OF HEALTH  
DIVISION OF ENVIRONMENTAL HEALTH

150 West North Temple, P.O. Box 2500, Salt Lake City, Utah 84110

Alvin E. Rickers, Director  
Room 426 801-533-6121

December 22, 1981  
(801) 533-6146

JIM  
DEC 28 1981

Mr. Robert G. Young  
Agent for Allied Mission Oil, Inc.  
612 Rico Way  
Grand Junction, Colorado 81501

Re: Vanadium Queen Mine  
Water Discharge

Dear Mr. Young:

The enclosed sample analyses of the Vanadium Queen August 12, 1981 mine discharge indicated the following unsatisfactory results:

|                             | <u>Effluent</u> | <u>State Standard</u> |
|-----------------------------|-----------------|-----------------------|
| Total Suspended Solids mg/l | 1000 mg/l       | 25 mg/l               |
| Total Dissolved Solids      | 828 mg/l        | 1 ton/day             |
| Gross Alpha                 | 6697 pc/l       | 15 pc/l               |
| Gross Beta                  | 8433 pc/l       | 50 pc/l               |
| Radium-226                  | 543 pc/l        | 5 pc/l                |

According to our information and the NPDES permit UT-0023442 a mine discharge is not approved unless there has been a rainfall event exceeding the 10 year 24 hour storm. You are requested to immediately cease the discharge of water disturbed by mining operations. In addition to the enclosed information we requested March 3, 1980, we request that Allied Mission Oil, Inc. submit by January 15, 1982 the following information:

1. Diagram showing the location of mine water source, mining areas, haulage way, mine dump and mine water flow.
2. Mine water discharge volume.
3. August 12, 1981 precipitation data.
4. Corrective measures used to prevent the discharge of water disturbed by mining operations.

File Vanadium  
Queen Mine  
Copy to Wayne  
ACT/037/036



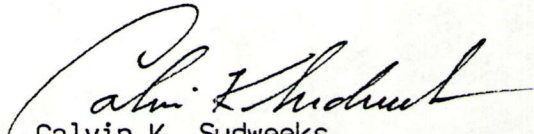
Mr. Robert G. Young  
Page Two

5. Date corrective measures were implemented.
6. Proposed plans and information including specific dates for implementation of additional mine water discharge treatment. This must include diversion of the mine water away from the waste rock dump.

You are again reminded that prior to initiating construction of any wastewater treatment system, the plans must be approved by this office.

Sincerely,

UTAH WATER POLLUTION CONTROL COMMITTEE

  
Calvin K. Sudweeks  
Executive Secretary

SRM:drb

Enclosure

cc: Fred Nelson, Assistant Attorney General  
Oil, Gas and Mining  
EPA - Denver



L

STATE HEALTH LABORATORY  
44 MEDICAL DR. SALT LAKE CITY UTAH 84113      PHONE 533-6131  
RADIOCHEMICAL ANALYSIS REPORT

\*\*\*\*\* REVISED REPORT \*\*\*\*\*

DATE AND TIME REPORTED    1 DEC 1981    4:45:22 PM

|                   |            |                 |         |
|-------------------|------------|-----------------|---------|
| SAMPLE NO:        | 814713.    | DATE COLLECTED: | 120881. |
| ACCESSION NO:     | 810851.    | TIME COLLECTED: | 1030.   |
| STORET/SYSTEM NO: | 495895008. | DATE RECEIVED:  | 270881. |
| SAMPLE TYPE:      | ENVIRON    | SUBMITTED BY:   | BWPC    |

SAMPLING LOCATION: VANADIUM QUEEN MINE OUTFALL

|          |       |              |
|----------|-------|--------------|
| ANALYSIS | PCI/L | ACTION LEVEL |
|----------|-------|--------------|

\*\*\*\*\*

|          |       |     |
|----------|-------|-----|
| GR ALPHA | 6697. | 15. |
|----------|-------|-----|

|         |       |     |
|---------|-------|-----|
| GR BETA | 8433. | 50. |
|---------|-------|-----|

|         |  |  |
|---------|--|--|
| TRITIUM | LESS THAN MINIMUM DETECTABLE CONCENTRATION |  |
|---------|--|--|

|        |      |    |
|--------|------|----|
| RA-226 | 543. | 3. |
|--------|------|----|

\*\*\*\*\*

ALERT: ACTION LIMIT FOR GR ALPHA HAS BEEN EXCEEDED--SEE BELOW

ALERT: ACTION LIMIT FOR GR BETA HAS BEEN EXCEEDED--SEE BELOW

ALERT: ACTION LIMIT FOR RA-226 HAS BEEN EXCEEDED--SEE BELOW

\*\*\*\*\*      COMMENTS      \*\*\*\*\*

- 1) AN ALPHA ON A DRINKING WATER WHICH EXCEEDS 5 PCI/L REQUIRES RA-226
- 2) AN ALPHA ON A DRINKING WATER WHICH EXCEEDS 15 PCI/L REQUIRES URANIUM
- 3) AN RA-226 ON A DRINKING WATER WHICH EXCEEDS 3 PCI/L REQUIRES RA-228

ESTIMATED MINIMUM DETECTABLE CONCENTRATION (MDC).

500 ML SAMPLE

GROSS ALPHA.....1.0 PCI/L

GROSS BETA.....10.0

TRITIUM.....500.0

RA-226.....0.5

RA-228.....1.0

FOR CONSULTATION OR ASSISTANCE PLEASE CALL ENVIRONMENTAL HEALTH SERVICES, 801-533-6146  
~~BUREAU OF PUBLIC WATER SUPPLY, PHONE 801-533-1507~~